PADUCAH GASEOUS DIFFUSION PLANT

Paducah, McCracken County, Kentucky

Office: Oak Ridge Operations Office

Size: 3,423 acres (5.3 square miles)

NPL Status: Placed on the NPL on May 31, 1994.

Mission: The Paducah Gaseous Diffusion Plant, established in 1950 on the grounds of the old Kentucky Ordnance Works Trinitrotoluene (TNT) Plant, is actively engaged in the enrichment of uranium using gaseous diffusion technology. Most of the uranium output from the plant is designated for the commercial sector.

Overview of Environmental Conditions: To date, 209 Solid Waste Management Units (SWMUs) and areas of concern which have been segregated into 30 Waste Area Groups (WAGs) have been identified. On-site chemical contamination of soils was identified. Off-site groundwater contamination consisting of plumes contaminated with trichloroethylene and technetium-99.

CERCLA/RCRA Remediation Funding in FY 98: $39,582,000

Progress in Reaching Interagency Agreement

Paducah Gaseous Diffusion Plant (PGDP) was listed on the NPL on June 30, 1994. Remediation of environmental conditions is being addressed under authority of a CERCLA. An Interagency Agreement (the Federal Facility agreement) signed February 13, 1998, and a RCRA Part B Permit and Hazardous Solid Waste Act permits jointly issued by EPA and the State of Kentucky on July 16, 1991.

Specific Cost Estimates and Budgetary Proposals Involved in Each Interagency Agreement

Funds budgeted for environmental management at PGDP total $35.9 million of appropriated funding for FY 99 and $37.5 million for FY 00 according to the request in the President's Budget.

Public Comments Regarding Interagency Agreements

A 60-day public comment period was initiated in mid-April 1997. The public comment period for this agreement closed in mid-June 1997; the FFA was signed by DOE, EPA, and the state of Kentucky; and became effective February 13, 1998.

Progress in Conducting Remedial Investigations/ Feasibility Studies

The strategy to address contamination at PGDP has been documented in agreements between the DOE, EPA, and Kentucky. PGDP will prioritize response actions by WAGs to address threats to human health and the environment based upon the following criteria: a) mitigate immediate threats in all media, on or offsite; b) control "hot spots" associated with offsite contamination; c) address suspected sources of offsite

contamination; and d) implement final actions for groundwater and surface water integrator units.

FY 98 Accomplishments:

- Completed Feasibility Evaluation for the former Cylinder Drop Test Area (SWMU 91) for removing trichloroethylene (TCE) from contaminated soil using the Lasagna innovative technology;
- Completed RI/FS Work Plan for classified burial ground (WAG 3); at western Dense Non Aqueous Phase Liquid (DNAPL) sources (WAG 27); and for eastern DNAPL sources (WAG 28).
- Completed RI Report C-400 Area (WAG 6); and C-747-A Burial Ground and Burn Area (SWMUs 7 and 30) (WAG 22);
- Completed site evaluation work plan for electrical switch yards (WAG 8);
- Completed sampling and analysis plans at neutralization containment structures (WAGs 9 & 11);
- Completed PA/SI work plan for PCB release sites (WAGS 16 & 19); and
- Completed groundwater sampling analysis plan and report for C-749 Uranium Burial Ground (SWMUs 2, 7 and 30) (WAG 22).

Progress in Conducting Remedial Actions

Interim pump and treat systems have been implemented for the two large groundwater plumes, referred to as the Northeast and Northwest Plumes, to initiate control of migration of the high-contaminant concentrated areas. An alternative potable water supply has also been provided to affected offsite residents.

FY 98 Accomplishments:

- Issued Draft Operations & Maintenance Plans for the North East and North West Plume I RA;
- Issued Draft Five Year ROD Reviews for North West Plume and for Water Policy;
- Completed ROD for the C-611 petroleum release sites, C-740 TCE spill site, a fire training area;
- Completed PP and ROD for the former Cylinder Drop Test Area (SWMU 91) for removing TCE from contaminated soil using the Lasagna innovative technology;
- Shipped for off-site disposal 107 m^3 of mixed waste and 93 m^3 of low level waste;
- Completed RCRA closure of the C-746-R Hazardous Waste Solvent Storage Facility;
- Completed ROD for the C-746-K inactive sanitary landfill and completed or initiated remedial actions (WAGs 1 & 7); and
- Completed excavation of PCB contaminated surface soils and issued final RA Report (WAG 23).